



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

mf

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/767,546

01/23/2001

Pradeep K. Subrahmanyam

S01.12-0644

3008

27365

7590

10/26/2006

SEAGATE TECHNOLOGY LLC C/O WESTMAN
CHAMPLIN & KELLY, P.A.
SUITE 1400
900 SECOND AVENUE SOUTH
MINNEAPOLIS, MN 55402-3319

EXAMINER

SNIEZEK, ANDREW L

ART UNIT	PAPER NUMBER
----------	--------------

2627

DATE MAILED: 10/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/767,546

Applicant(s)

SUBRAHMANYAN, PRADEEP K.

Examiner

Andrew L. Snizek

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-34 and 36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19, 28-34 and 36 is/are rejected.
- 7) ☒ Claim(s) 20-27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

Art Unit: 2627

1. The following action is taken in view of applicants appeal brief filed 6/13/05 and updated search. The Finality of office action mailed 12/16/03 is withdrawn in view of the following action.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 19 and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Baba ('162).

Baba teaches a servo arrangement that adaptively generates an output responsive to a sensed position signal (column 6, line 10-11), a desired position signal (1) and at least one of a torque and an inertia (element 5, torque constant of a particular actuator used). As broadly as set forth this teaching satisfies the limitations of claim 19. Method claim 32 is drawn to the method of using the corresponding apparatus claimed in claim 19. Therefore method claim 32 corresponds to apparatus claim 19 and is rejected for the same reasons of anticipation (obviousness) as used above.

4. Claims 19, 28-34 and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Huang et al. (US 6,583,964).

Art Unit: 2627

Re claim 19: Huang et al. teaches with respect to figures 3 and 4 along with corresponding disclosure a apparatus that adaptively generates an output responsive to a sensed position signal and a desired position signal to form the PES along with at least a torque (column 9, lines 47-65 and column 10, lines 11-35). Method claim 32 is drawn to the method of using the corresponding apparatus claimed in claim 19.

Therefore method claim 32 corresponds to apparatus claim 19 and is rejected for the same reasons of anticipation (obviousness) as used above. The limitations of claim 33, "adapted parameter data" where this data is based on at least a torque (claim 34) are satisfied by the discussion in (column 10, lines 11-35). The claimed controlled VCM as set forth in claim 36 is satisfied by VCM (108) and the control thereof.

Re claim 28: Huang et al. teaches an apparatus comprising adaptive parameter data based on at least torque (column 10, lines 11-35) and a controller circuit (figure 4) that forms a position error signal as discussed in column 9, lines 47-65 which uses adaptively parameter data as discussed in (column 10, lines 11-35). The first and second controllers as set forth in claim 29 are satisfied by the primary and secondary driver arrangements as depicted in figure 4. The model as set forth in claim 30 is deemed satisfied by the model as discussed in (column 10, lines 11-35). The sensed position signal as set forth in claim 31 is satisfied by the discussion in column 9, lines 47-65.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2627

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 36
6. Claim ~~32~~³⁶ is rejected under 35 U.S.C. 103(a) as being unpatentable over Baba ('162) in view of Clare et al. ('286).

The teaching of Baba is discussed above and incorporated herein. Claim 36 additionally sets forth a voice coil motor (VCM) that receives the output which although not taught by Baba is well known in the art as taught by Clare et al. (element 40) as a commonly known motor to move an actuator in a disk drive. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a specific VCM as taught by Clare et al. in the arrangement of Baba as an alternative means to move the actuator.

Allowable Subject Matter

7. Claims 20-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: The arrangement as set forth in claim 20/19 that includes a controller circuit that has a controller gain that is adapted in a fixed range as a function of adaptive parameter data is neither taught by nor an obvious variation of the art of record.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sidman et al. teaches an adaptive bandwidth regulator.

Response to Arguments

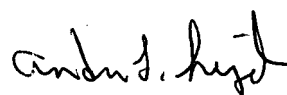
10. Applicant's arguments filed 6/13/05 have been fully considered but they are not persuasive. Applicant's arguments concerning Baba are acknowledged however in Baba a control is used that adaptively generates an output signal. Each particular actuator used has a distinctive torque parameter/constant that is used. Claims 19 and 32 do not set forth, for any given actuator, there is a parameter that is adaptively changed, but instead only that the output is changed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Snizek whose telephone number is 571-272-7563. The examiner can normally be reached on Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Andrew L. Sniezek
Primary Examiner
Art Unit 2627

A.L.S.
10/23/06



WAYNE YOUNG
SUPERVISORY PATENT EXAMINER

*approved for
this grounds of
rejection*